

CLAIMS

1. A polyolefin graft copolymer produced, in the presence of a coordination polymerization catalyst, by copolymerizing an olefin monomer and a macromonomer having a multilayer 5 structure in an aqueous system.

2. The polyolefin graft copolymer according to Claim 1, wherein the macromonomer having the multilayer structure is a macromonomer having a two-layered structure including 10% to 95% by weight of a layer composed of a rubber-like 10 polymer and 5% to 90% by weight of a layer composed of a hard polymer.

3. The polyolefin graft copolymer according to either Claim 1 or 2, wherein the macromonomer having the multilayer structure is produced by emulsion polymerization using a 15 redox initiator.

4. The polyolefin graft copolymer according to any one of Claims 1 to 3, wherein the coordination polymerization catalyst is a complex containing a ligand having two imine nitrogen atoms and a late transition metal selected from 20 Groups 8 to 10 in the periodic table.

5. The polyolefin graft copolymer according to any one of Claims 1 to 4, wherein the olefin monomer is an  $\alpha$ -olefin.

6. A method for producing the polyolefin graft copolymer according to any one of Claims 1 to 5, the method comprising 25 allowing a macromonomer having a multilayer structure, an

olefin monomer, and a coordination polymerization catalyst to react with each other in an aqueous system.

7. A thermoplastic resin composition containing the polyolefin graft copolymer according to any one of Claims 1  
5 to 6.

8. The thermoplastic resin composition according to Claim 7, wherein the composition contains a polyolefin resin as a component.